HUME ON INDUCTION

(*Part 2 of 2*)

Text source:

Enquiry Concerning Human Understanding, section 5

ONE VIEW OF WHAT EMPIRICAL SCIENCE IS UP TO

(1) At least as an ideal, it aims to tell us what *logically must be the case* in the empirical world.

- E.g. Kerosene *logically must* inflame fires further, unsupported bodies *must* fall to toward the ground etc…; Its not even *logically possible* to be otherwise

- In this respect it is like arithmetic and geometry: it tells us what *logically must* be the case.

A RIVAL VIEW OF WHAT EMPIRICAL SCIENCE IS UP TO

(2) Empirical science just systematically notes what types of events are always *in fact* found together in cause-effect pairs.

- Empirical science (unlike math say) *never* shows us what logically *must* be the case.
- After all, for all logic tells us, conceivably, any event could be followed by any event: anything could cause anything. (*That's why we have to experiment*: *to find out what causes what!*)
- So science just enumerates and systematically charts all these observed regularities in the empirical world (e.g. Its an observed uniform regularity that "Whenever we throw kerosene on a fire, it always inflames it further.")

HUME ENDORSES THE SECOND OF THESE TWO VIEWS

- Hume sees science in this second way.

- Moreover, he thinks that our everyday, pre-scientific understanding of causation (E.g. Unsupported objects fall; fire burns me; ice cools me; it hurts when I bang my head on the door…) is basically the same – its just that here the accumulated observations are less systematic and controlled, and deal in things that we encounter all the time.

TWO OBJECTIONS TO THIS LATTER (HUMEAN) VIEW OF SCIENCE AND EVERYDAY CAUSE-EFFECT REASONING

(1) Maybe this is how the more superficial sciences work (e.g. pharmaceutical testing, ballistics tests). But don't we see logical necessities in the more fundamental explanations of physics?

Response: No – it's the same thing there too.

(2) Don't we see a logical necessity in certain of the most familiar everyday cause-effect relationships (e.g. the impacts of billiard balls)?

Response: No – after all, there's no logical contradiction in such regularities failing.

HUME'S 'PROBLEM OF INDUCTION'

- **Inductive inferences (extrapolations from observed regularities to unobserved cases) cannot be rationally justified *at all*, because…**

  (i) **…They can't be justified *a priori* (independently of experience) by logic alone** (since no conclusion of an inductive argument is ever logically entailed by its premises, and its always logically possible that an observed regularity will break down) (ECHU 4.18)

  (ii) **…And they can't be justified *a posteriori* by appeal to experience** (since this presupposes that the future will resemble the past, and so begs the question). (ECHU 4.19, 4.21)

HUME'S "SKEPTICAL SOLUTION" TO THE PROBLEM OF INDUCTION

- Hume first notes that, even though his argument has showed that induction cannot be rationally defended, we cannot really stop ourselves from using induction. Nature has just built us that way (ECHU 4.21, 5.2).

- He then ask: Well, what ***causes*** us to make an inductive inference? What do we steer by?

  - Note that this is very different from asking what ***justifies*** our making inductive inferences – to which the answer is of course '*Nothing*!')

HUME'S "SKEPTICAL SOLUTION" *(continued)*

- Hume notes that we only make inductive inferences when we've seen a large series of uniformly conjoined events, not just one or two (ECHU 5.3, 5.4).

- So he then concludes that we are caused to make inductive inferences out of a principle he calls "custom or habit" (ECHU 5.5):

  - *"For wherever the repetition of any particular act or operation produces a propensity to renew that same act or operation, without being impelled by any reasoning or process of the understanding; we always say, that this propensity is the effect of Custom."* ECHU 5.5.

HUME'S "SKEPTICAL SOLUTION" *(continued)*

- **So Hume's point is just that nature has endowed us with a non-rational tendency to extrapolate from past cases to future cases of a similar type.** Observing a certain regularity, we come to have a psychological expectation that the regularity will continue. But such an expectation does not constitute a rational justification.

  (As we've seen, Hume holds that no such rational justification is possible.)

- And of course, this non-rational "custom or habit" is absolutely indispensable to all our practical life and the sciences. (ECHU 5.6, 5.21)

HOW ARE WE TO UNDERSTAND THIS "SKEPTICAL SOLUTION"?

There seem to be two ways of taking Hume's so-called "skeptical solution":

(1) In an upbeat naturalist way. Thank goodness nature has equipped us to make these non-rational leaps, since we'd be toast without them! (See esp. 5.21)

(2) In a downbeat skeptical way. But we've *no rational justification* for the practice nature has instinctively forced upon us – and, by the way, the 'upbeat' approach above of course illegitimately assumes that nature will continue to be uniform!